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| **chemical-reactions** | **Chemistry** | **شعار-القسم** |
| Worksheet-7- |
| Reactivity Series(1) |

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| Name: Class: 8 /……........ | |
| Book pages: | |
| 26 / 12 / 2011 | Date: |
| 8.13.1 | Core Standard number |
| *Sts. able to :*  *1-****Know*** *the reactions of common metals( Ca, Mg, Fe, Na ) with water dilute acid, and deduce their reactivity order .*  *2-* ***Know*** *the reactivity series for the most common metals.* | Learning Objectives  Logo + text 2 |

1. Metals and water
2. Metals and cold water

The general chemical equation is:

Metal + water 🡪 metal hydroxide + hydrogen

Example : sodium + water 🡪 sodium hydroxide + hydrogen

Calcium + water 🡪 calcium hydroxide + hydrogen

1. Metals and hot water ( steam )

Metal + steam ( water ) 🡪 metal oxide + hydrogen

Example :

Magnesium + steam 🡪 magnesium oxide + hydrogen

Iron + steam 🡪 iron oxide + hydrogen

1. Compare the order of reactivity of calcium ( Ca ), magnesium ( Mg ), iron ( Fe ) and

sodium ( Na ) with water.

Reactivity increase

Ca

Na

Mg

Fe

React quickly with cold water

React slowly with cold water

React quickly with steam

1. Metals and dilute acids
2. The general chemical equation is

Metal + acid 🡪 salt + hydrogen

1. Example :

Magnesium + sulphuric acid 🡪 magnesium sulfate + hydrogen

Iron + sulphuri acid 🡪 iron sulfate + hydrogen

c- Compare the order of reactivity of calcium ( Ca ), magnesium ( Mg ), iron ( Fe ) and

sodium ( Na ) with dilute acid.

Reactivity increase

Fe

Mg

Na

Ca

1. From the reactions above we can deduce a reactivity series for Ca, Mg, Na and Fe

Na

Ca

Reactivity increase

Fe

Mg